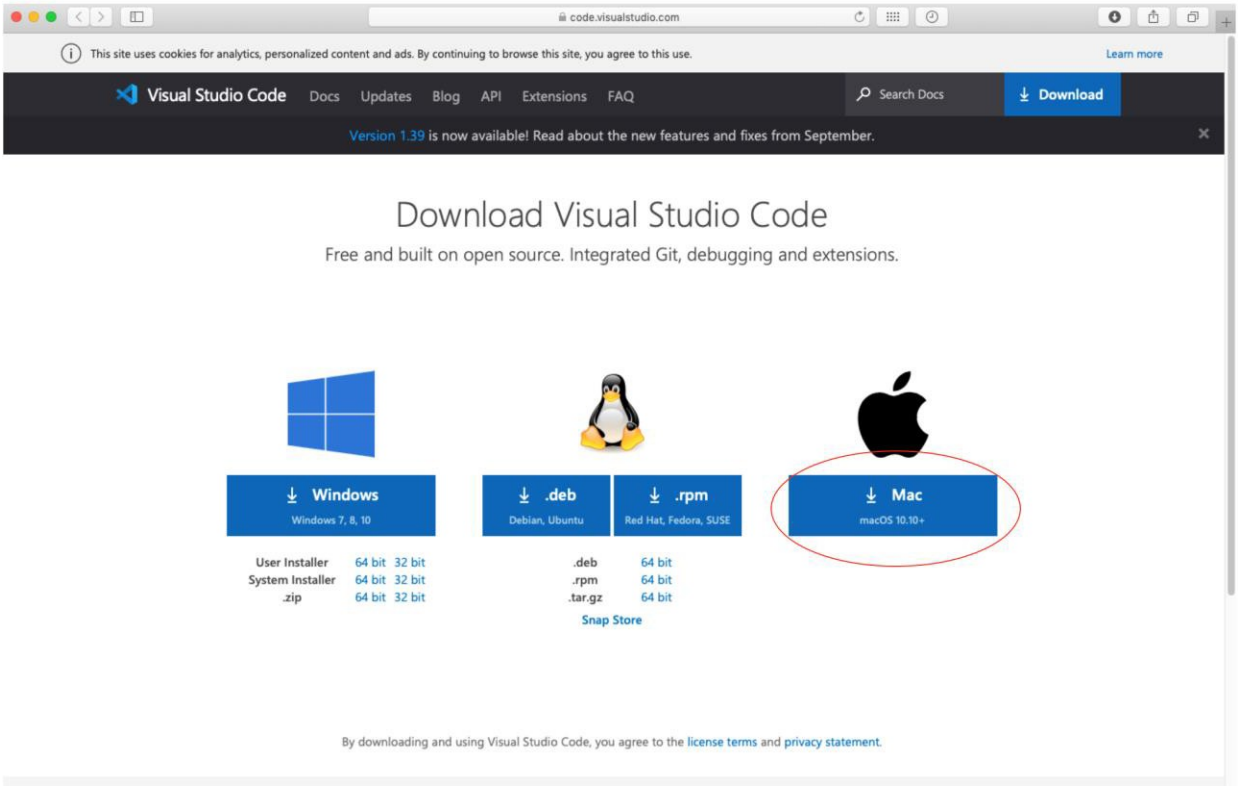
CSCI 2270 CS2: Data Structures
Ashraf, Godley, Summer 2020
Visual Studio Code

You will also use Visual Studio Code (VS Code) to write and execute your programs locally.

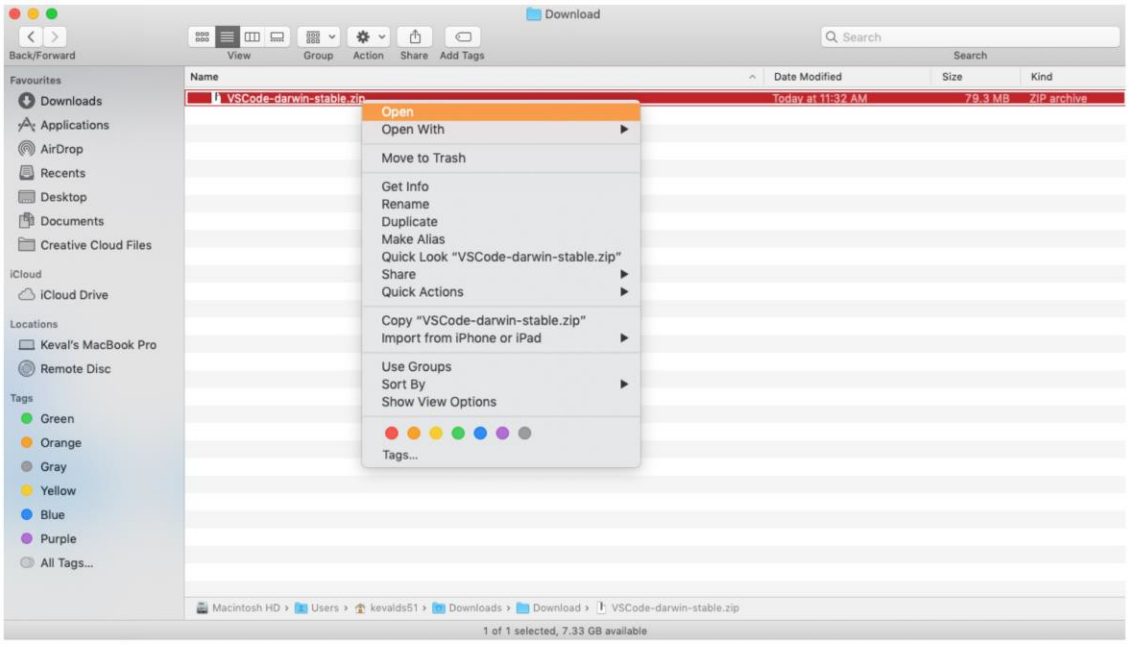
Important: Before proceeding with this document, make sure that you have run Windows Update within your Windows 10 environment. You must have the latest updates installed.

Mac Installation Guide Part 1

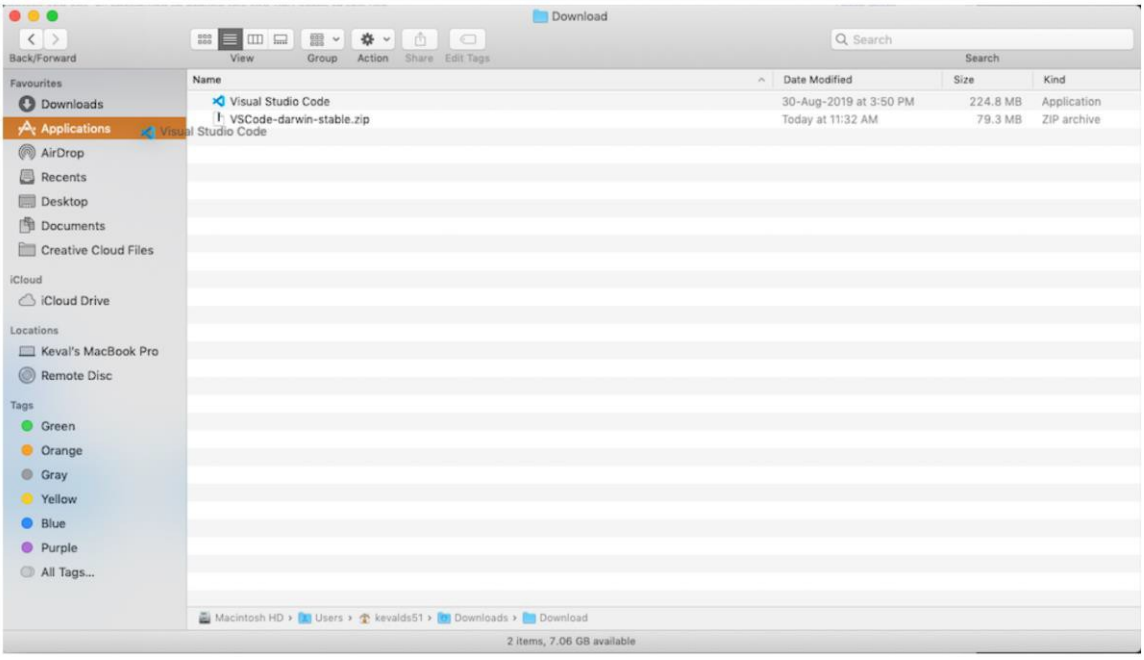
Step 1: Go to VS code download page, and download for Mac.



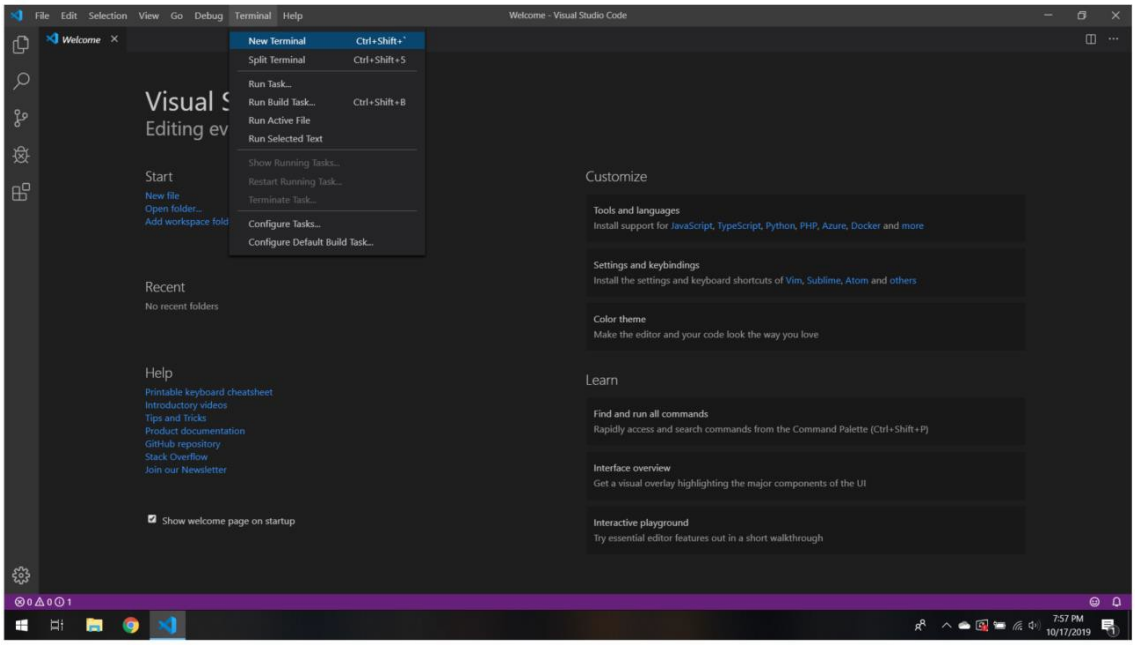
Step 2: After the download has finished, unzip the folder by double-clicking on it.



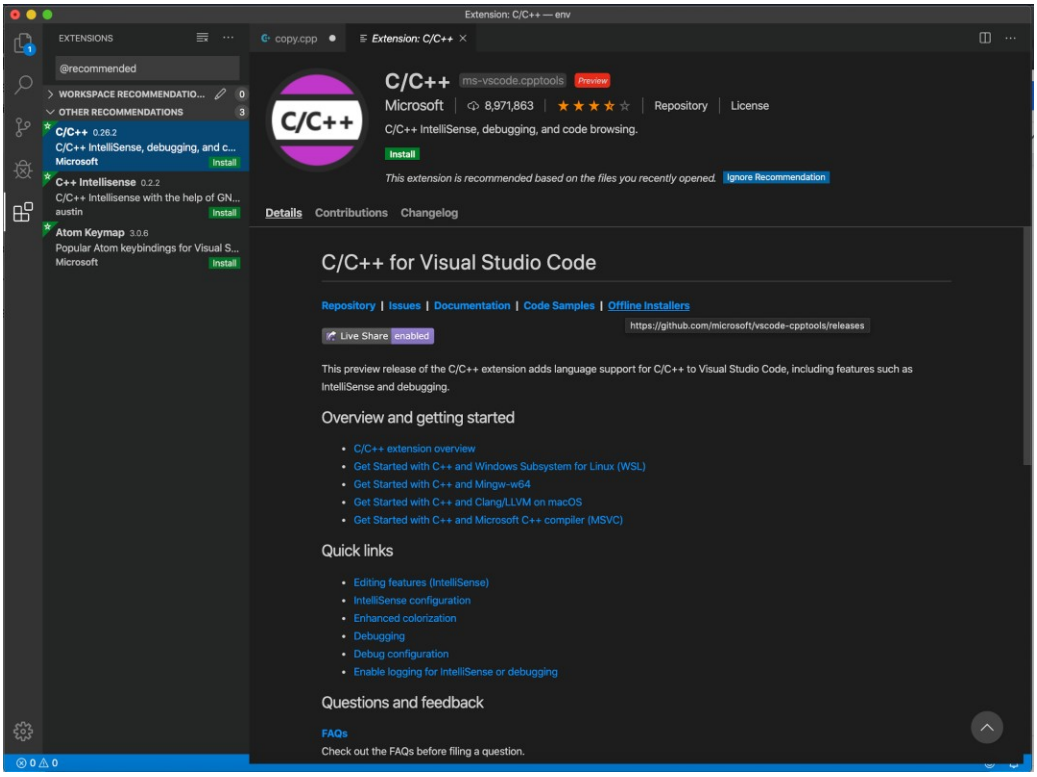
Step 3: Now you can see the “Visual Studio Code” application. Drag and drop this icon to the “Applications” folder of your computer.



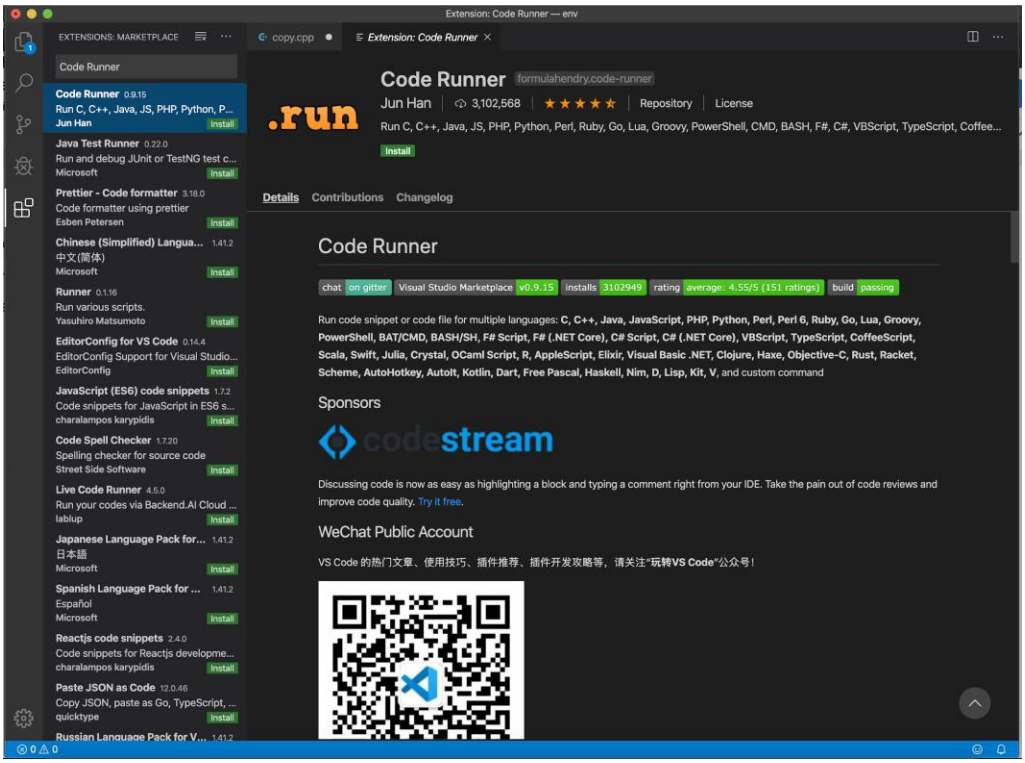
Step 4: Double click on the ”Visual Studio Code” icon to launch the application. (You might need to right click and select “open” if you cannot launch the program). Next, select the new ”Terminal option” to open the terminal window.



Step 5: Install C/C++ extension. In the toolbar on the left hand side of the screen click on the bottom icon for Extensions. Search for C/C++ and click install.



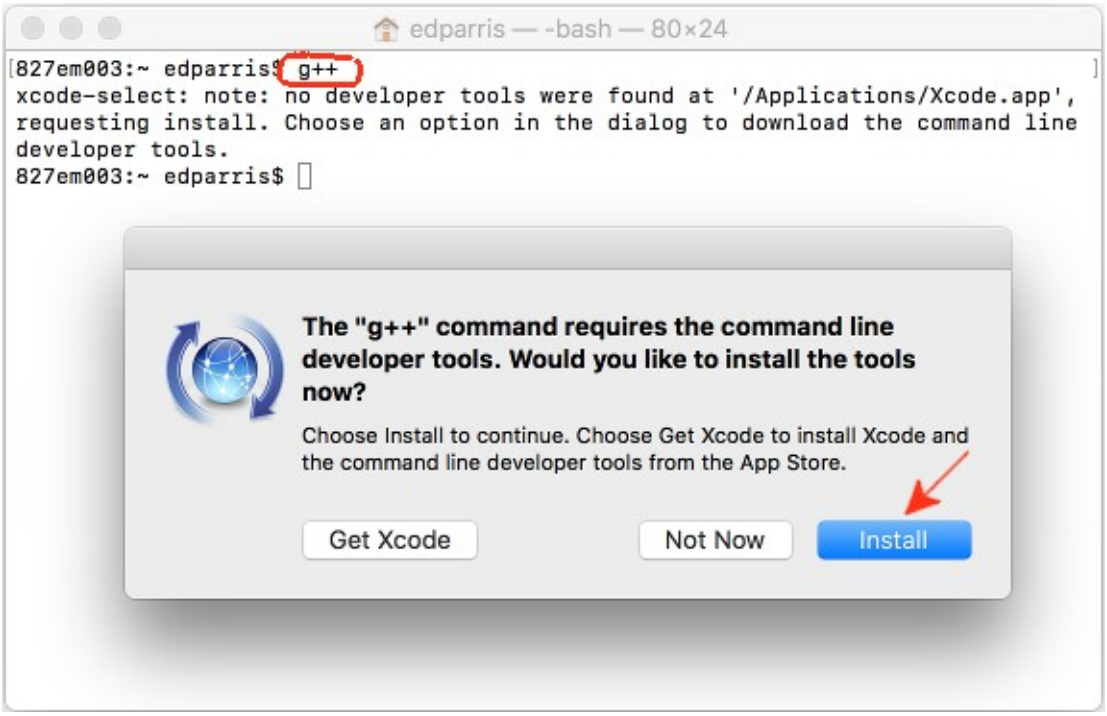
Step 6: Install Code Runner extension. In the extensions tab search for Code Runner and click install. Code runner allows you to compile and run code by the click of a single button.



Mac Installation Guide Part 2

Install g++

1. Open a Terminal window.
   Press ⌘ Command+Space, type **Terminal** in the search field, and press the Return key.
2. In the Terminal window type **g++** and press the Return key. We will see an alert box like this:

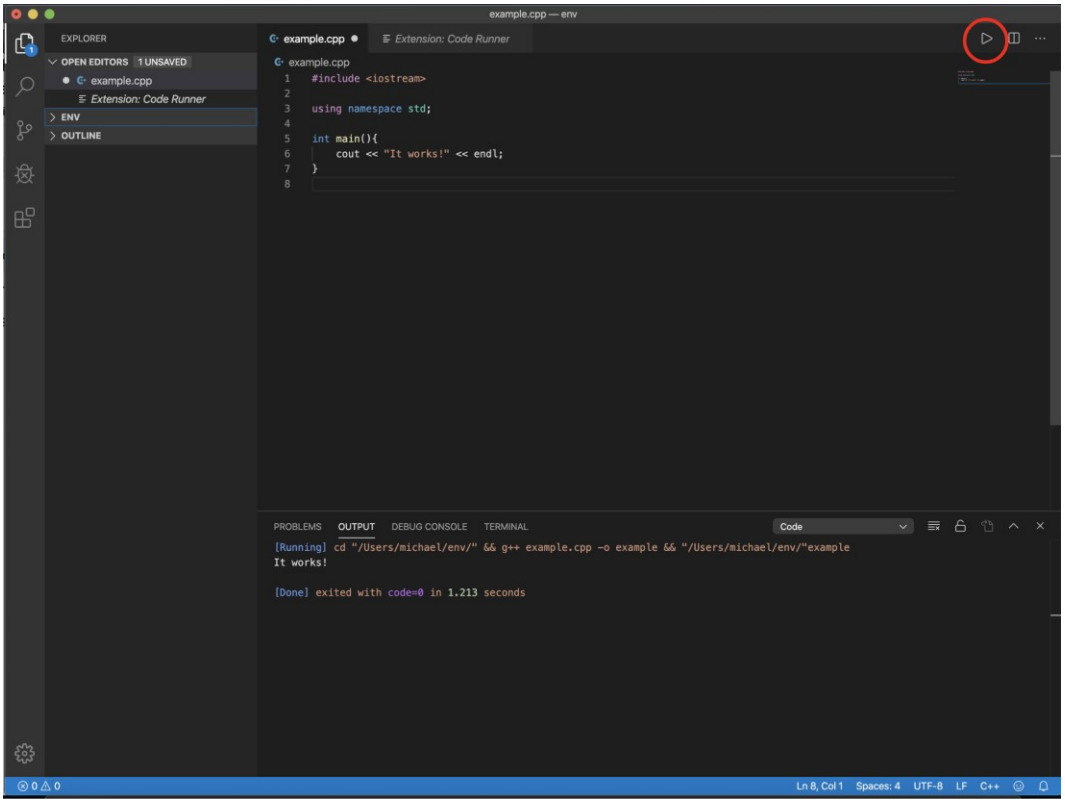


3. Choose **Install** to get only the command line tools unless you want to learn Xcode. Xcode can be installed later from the App Store.

   After installation, type **g++** in the Terminal, press the Return key, and verify the terminal prints the message, "no input files".

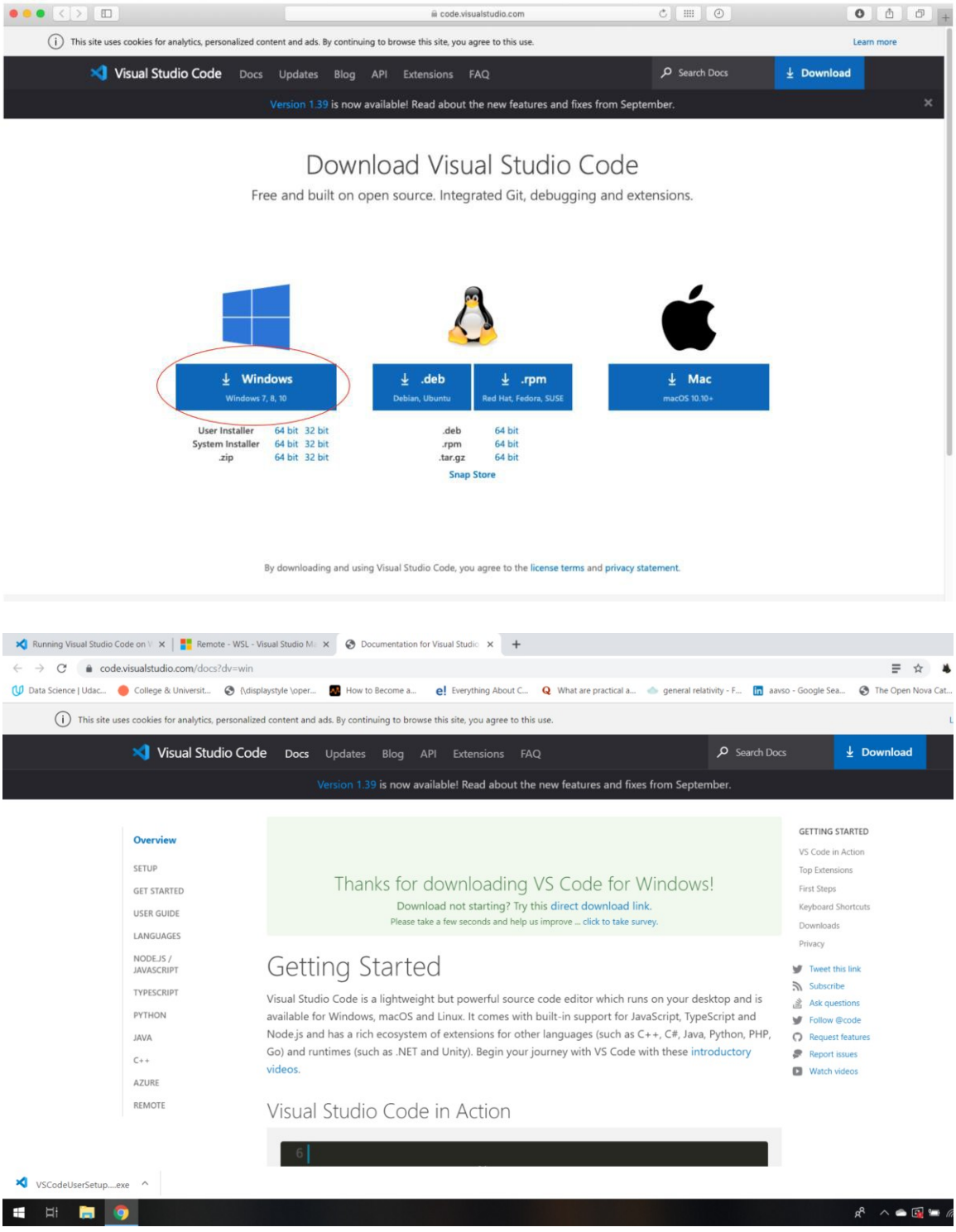
   $ g++
   clang: error: no input files

Final Step: Now if you return to VSCode and open a C++ file you will have a grey play button in the top right corner, click that button and it will compile and run your code displaying the output in the terminal at the bottom of your screen!

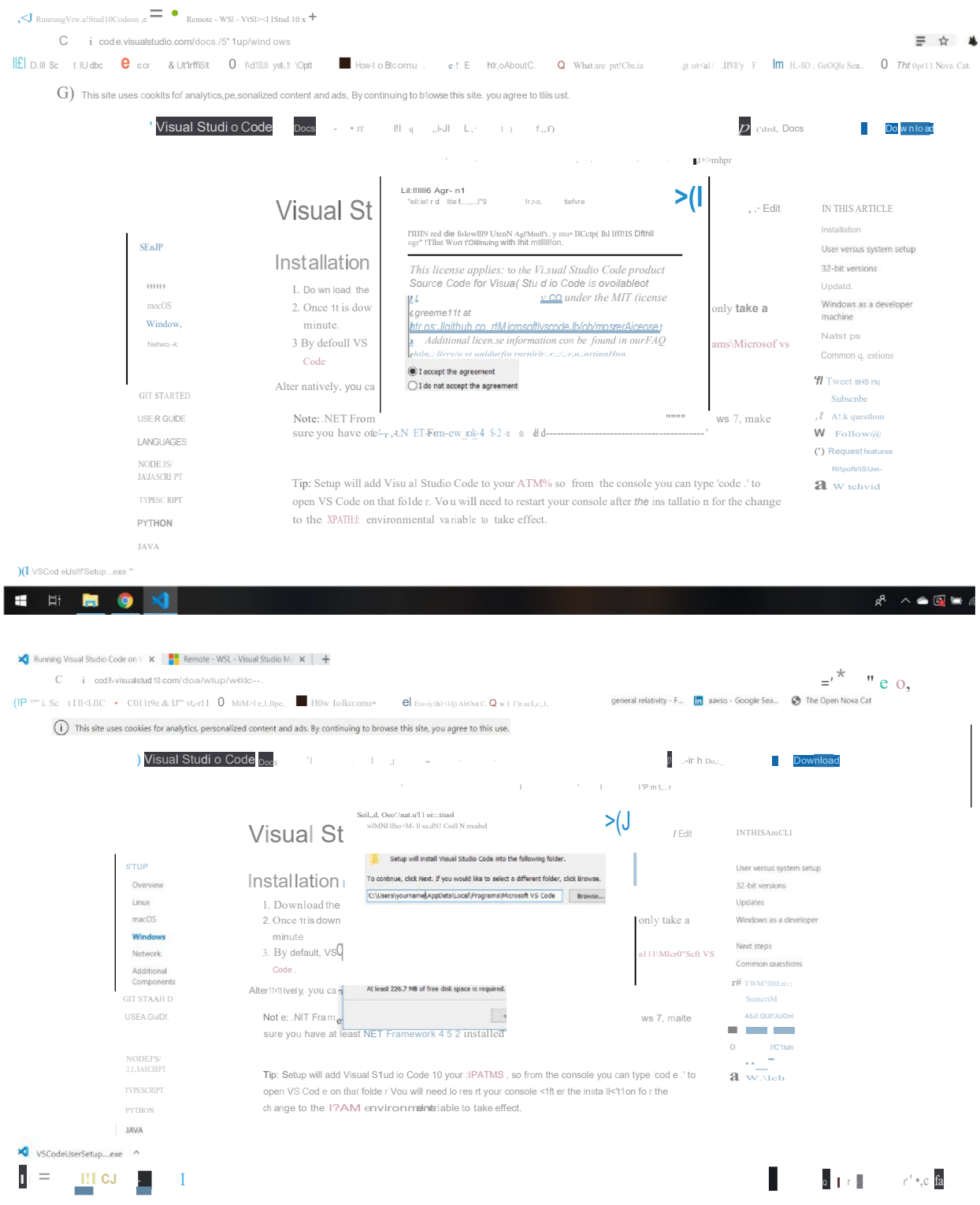


Windows Installation Guide (part 1)

Step1: Go to VS code download page, and download for Windows.



Step2: Accept the user agreement and proceed to follow the steps for installation


Visual Studio Code
Docs
Download
Visual St
Installation
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Note: .NET From
sure you have ot
Tip: Setup will add Visu al Studio Code to your ATM% so from the console you can type 'code .' to open VS Code on that fo1de r. Vo u will need to restart your console after the ins tallatio n for the change to the XPATH:I: environmental va riable to take effect.
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Running Visual Studio Code on
Remote - WSL - Visual Studio M:
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Docs
Download
Visual St
Installation
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Code .
Alter!1<1tively, you ca
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sure you have at least NET Framework 4 5 2 installed
ws 7, maite
Setup will install Visual Studio Code into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Users\yourname\AppData\Local\Programs\Microsoft VS Code
Browse...
At least 226.7 MB of free disk space is required.
Tip: Setup will add Visual S1ud io Code 10 your :IPATMS , so from the console you can type 'cod e .' to open VS Cod e on that folde r You will need lo res rt your console <1ft er the insta ll<'t1on fo r the ch ange to the I?AM environmental variable to take effect.
INTHISAmCLI
User versus system setup
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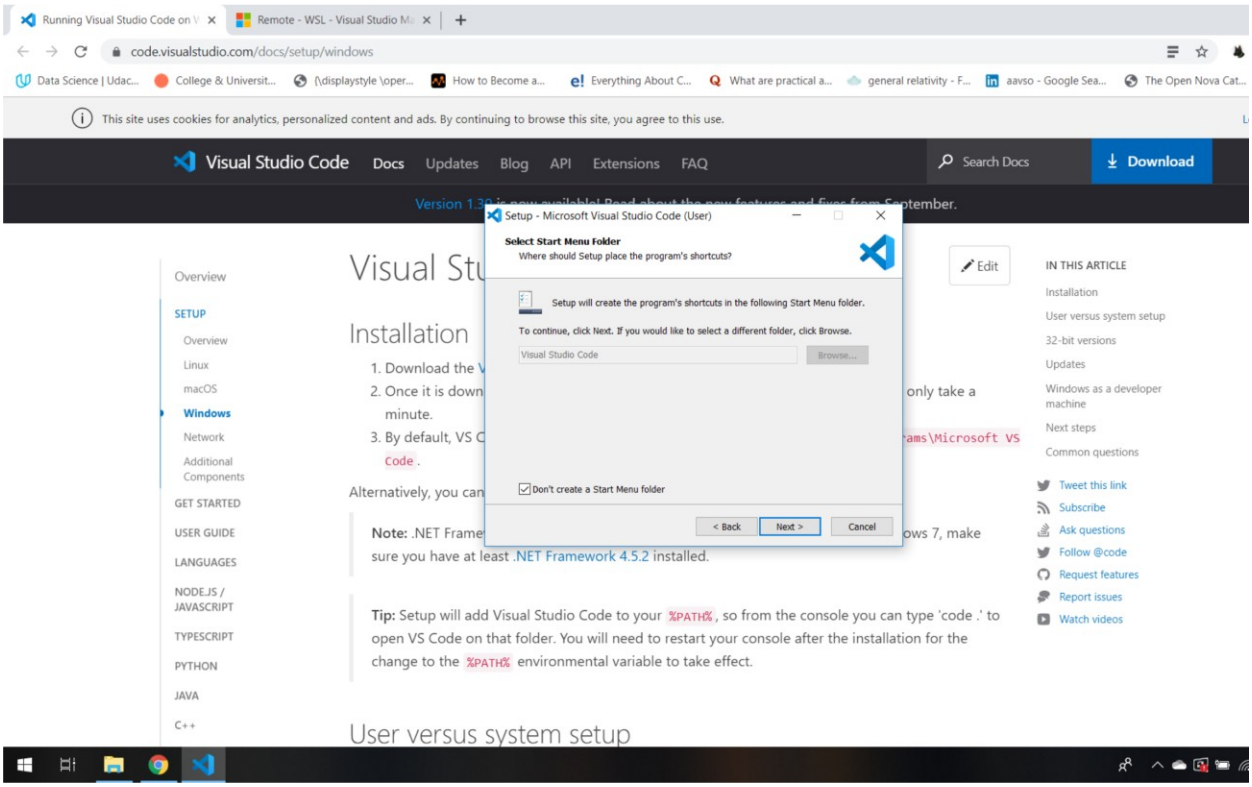
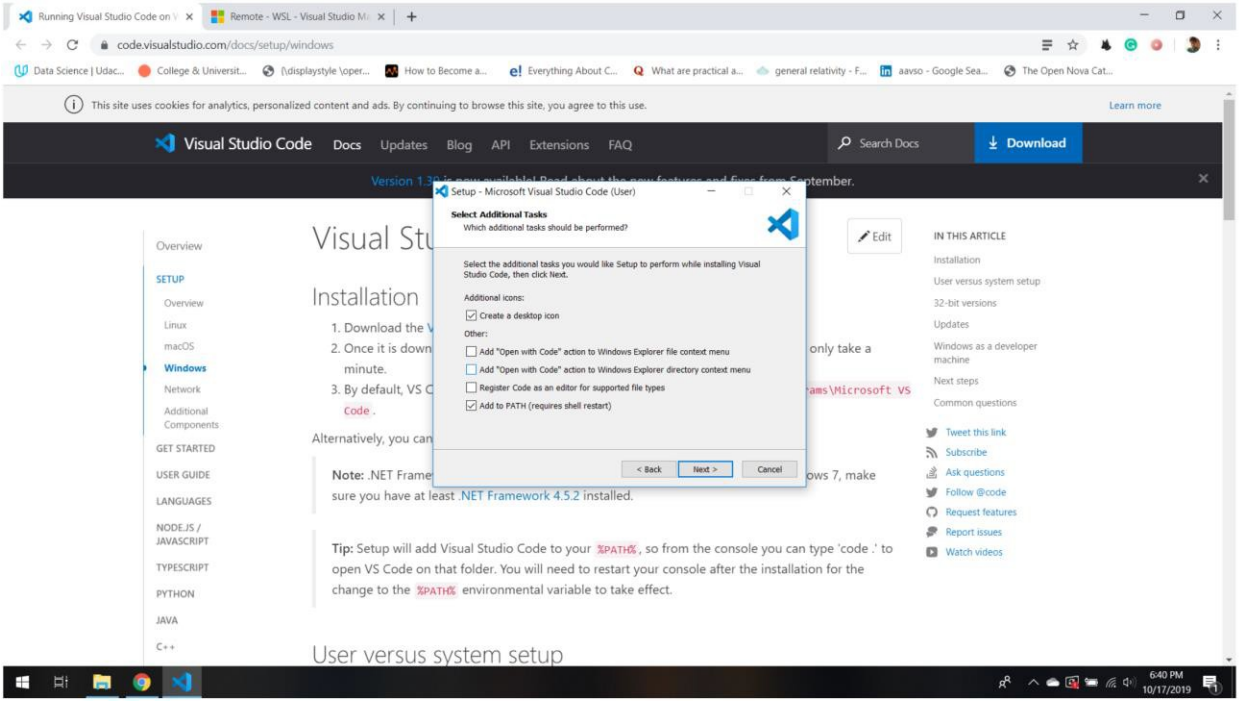
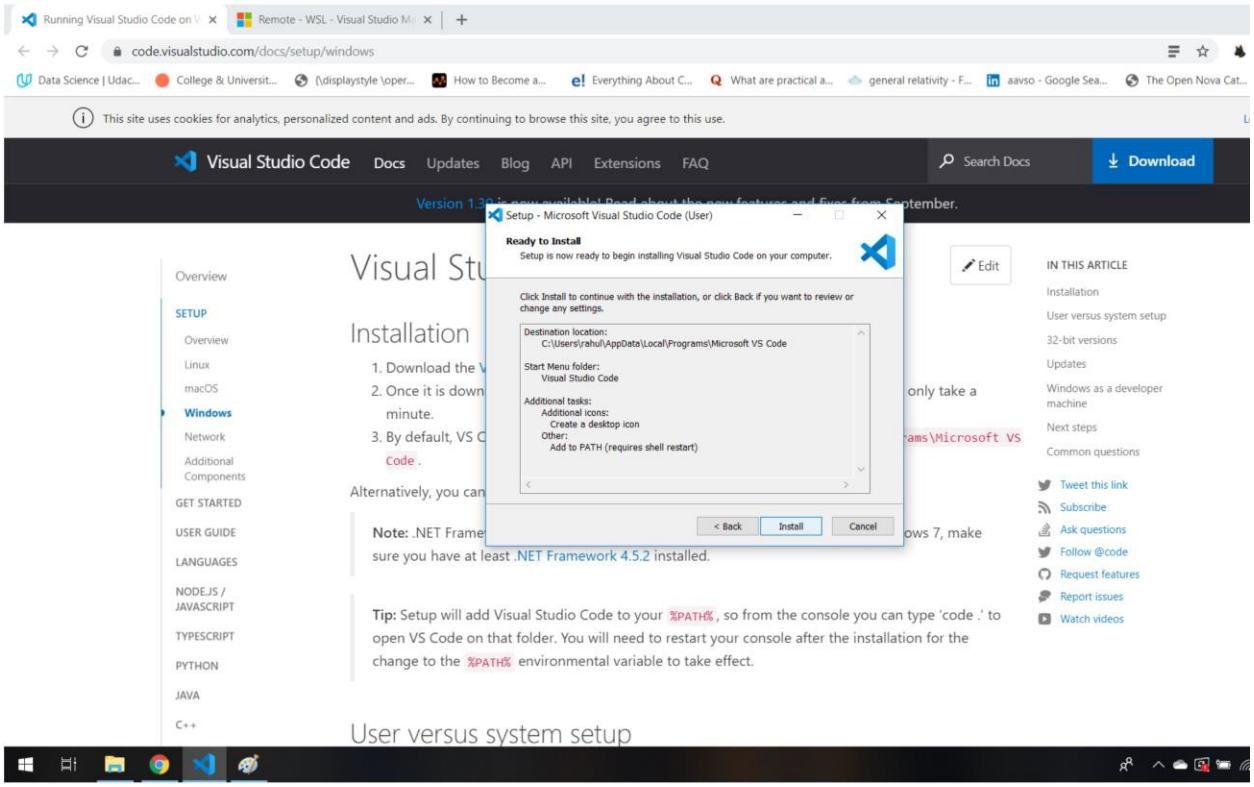
I'VPESCRIPT
PYTHON
JAVA
VSCodeUserSetup....exe



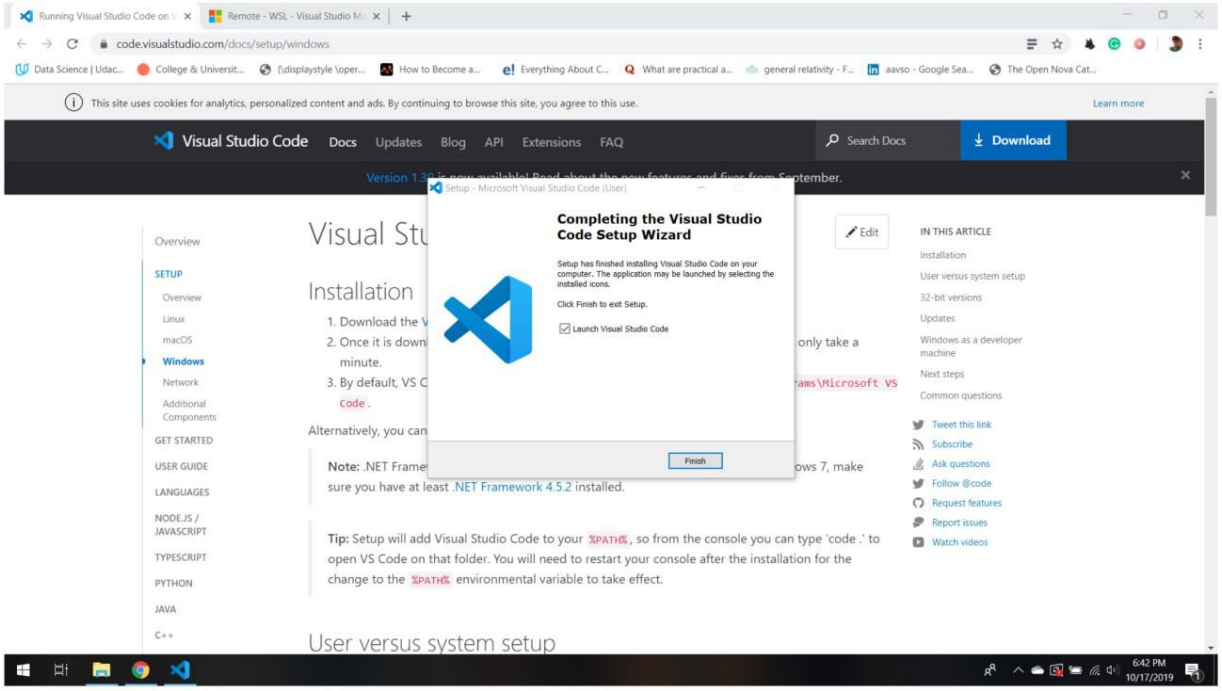
Step3: Choose Options based on your preferred settings. If you're not sure, you can stick with the ones used in this tutorial.



Step4: Click on Install and wait for Visual Studio Code to finish installing.



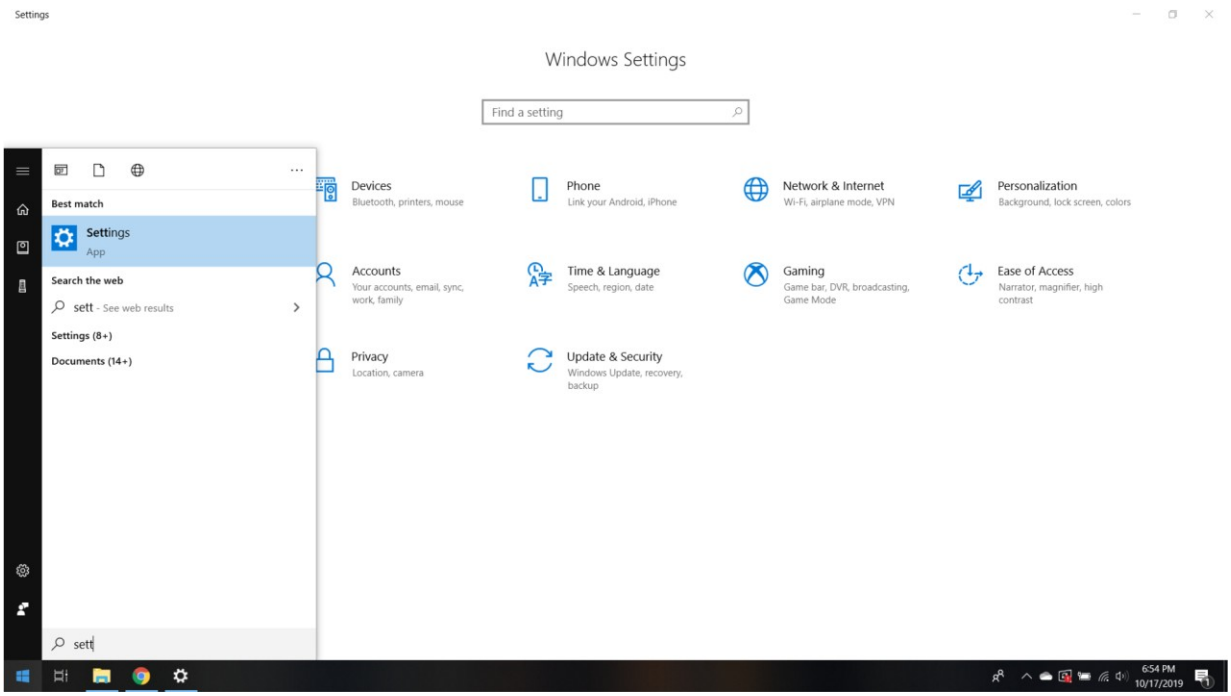
Step5: You may check out Visual Studio Code by launching it.

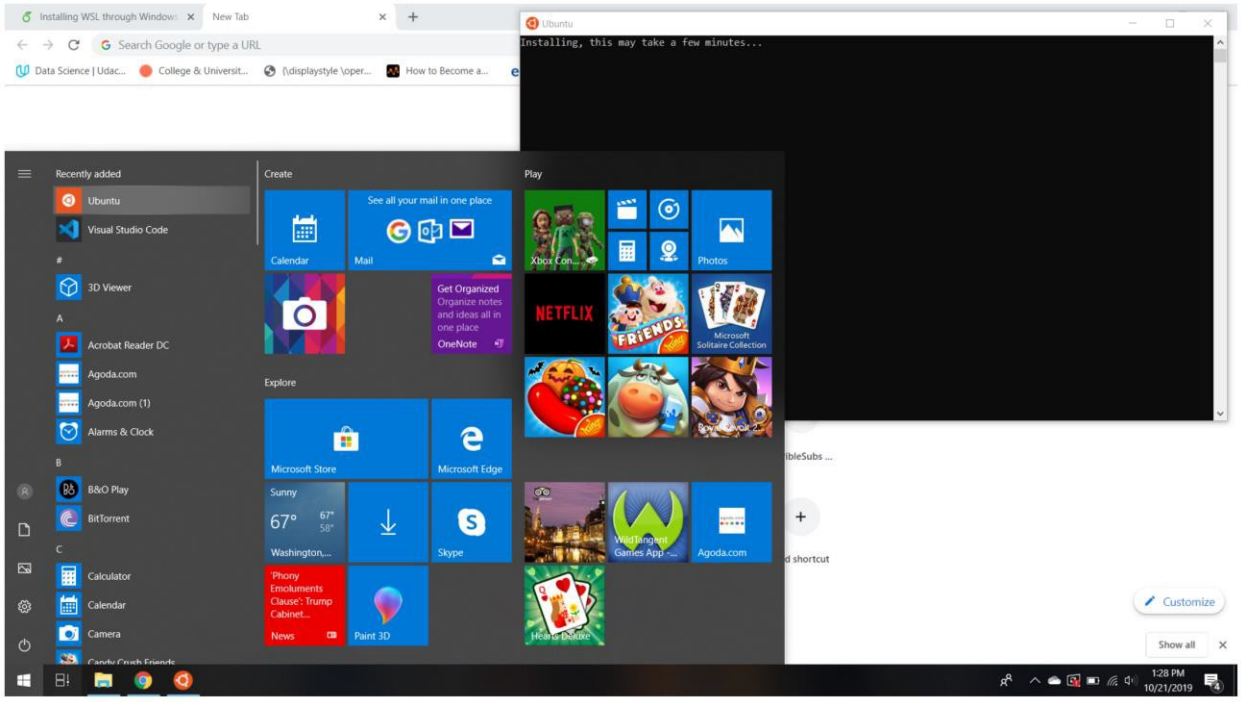


Installing Windows Subsystem for Linux (WSL) (part 2)

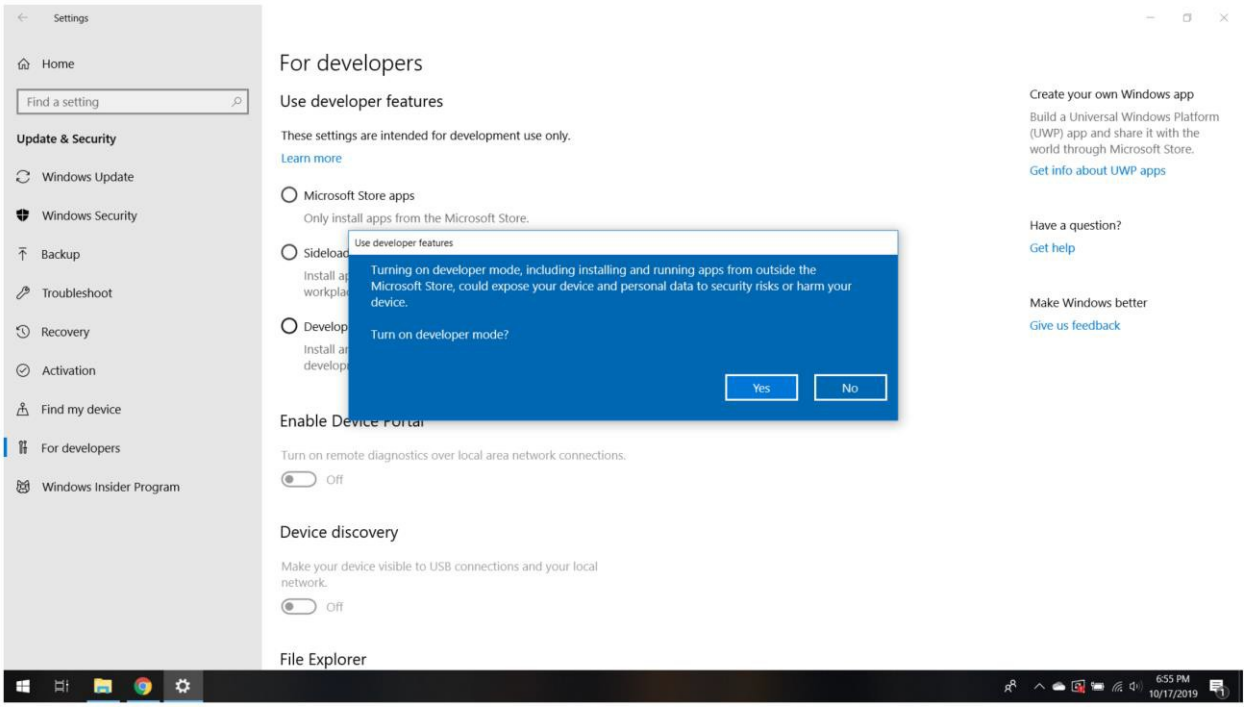
Let us now install WSL so that we can emulate linux commands and functionality on our Windows Machine

Step1: Open Settings from your Start menu and click on Update and Security.

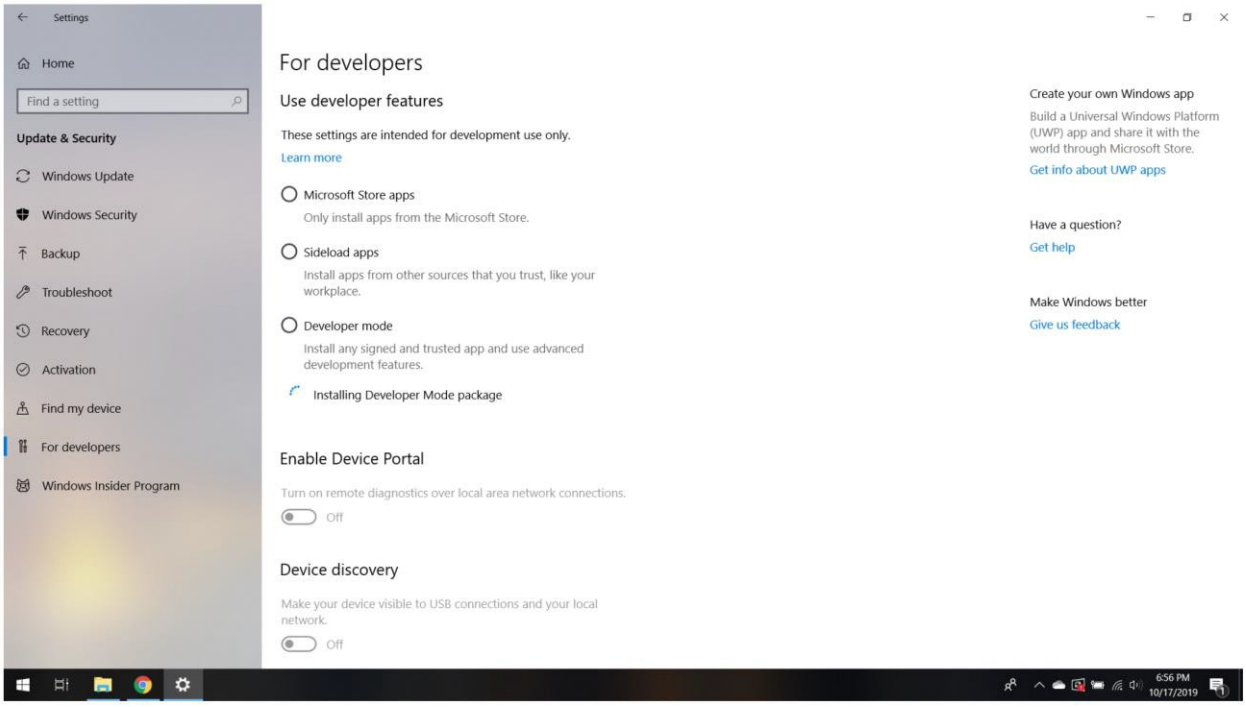




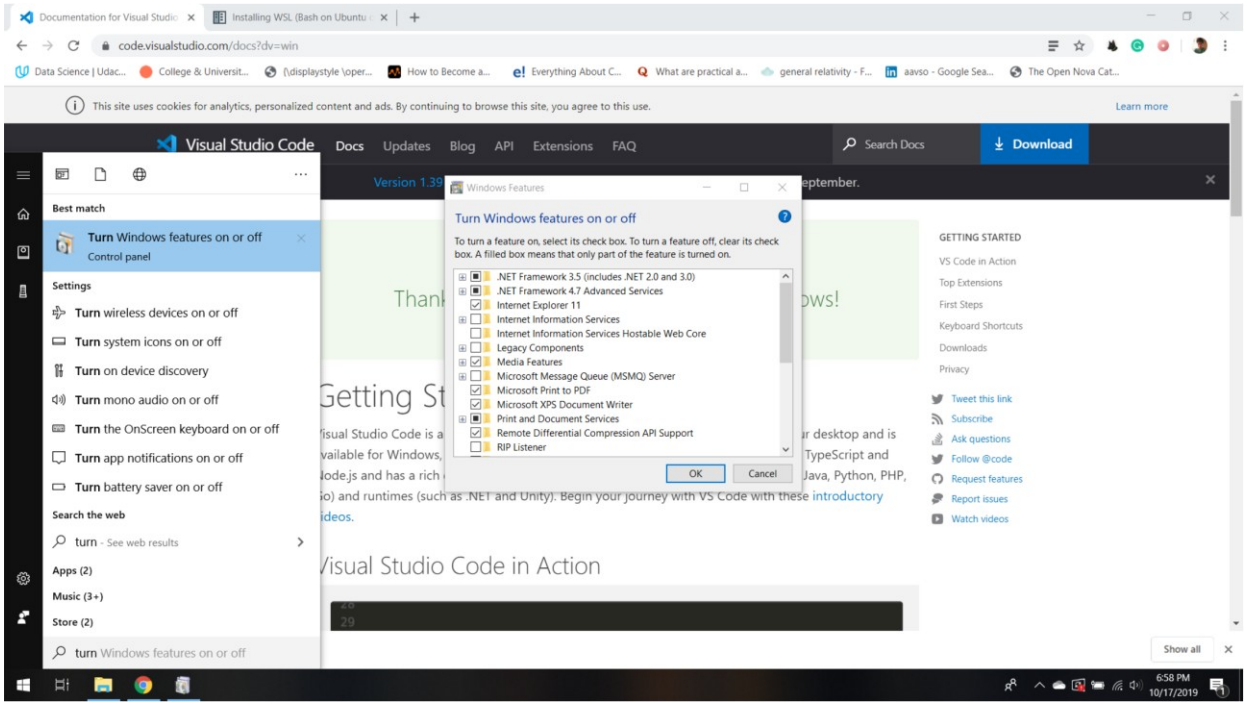
Step2: Click on the For Developers Tab on the left side and toggle the Developer Mode option. Click “Yes” to turn on developer mode.



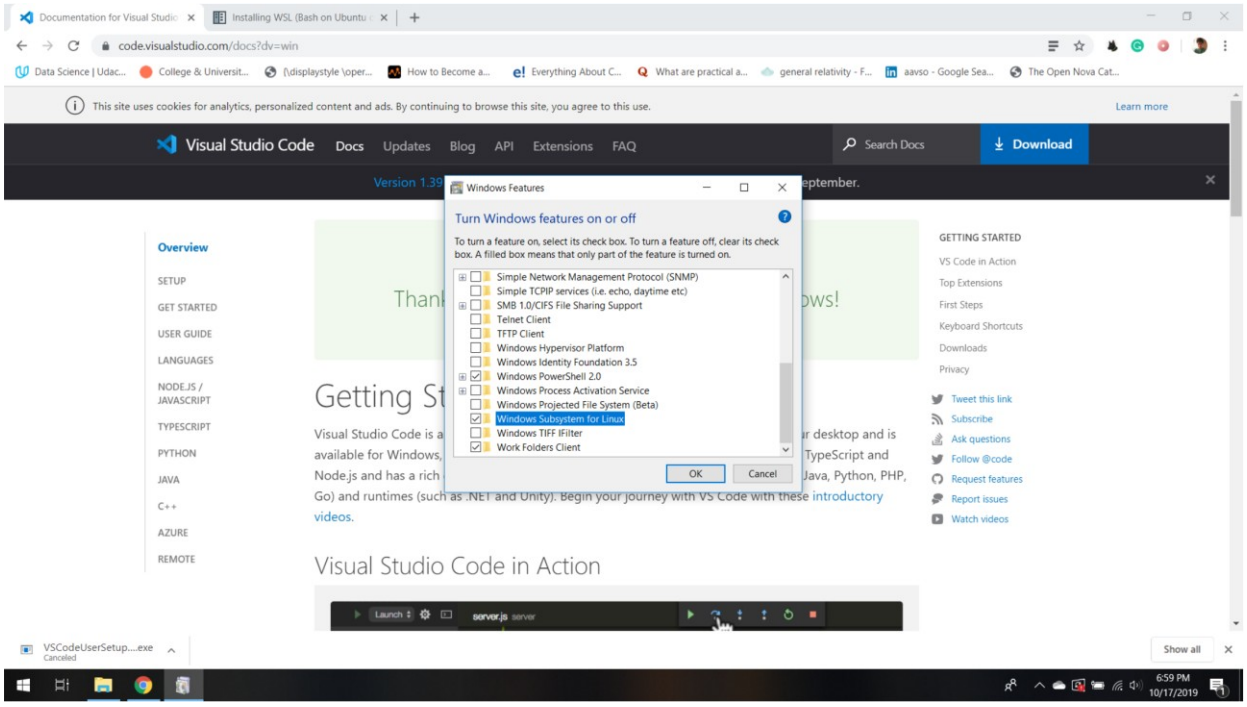
Step3: This will start a brief installation of developer packages.



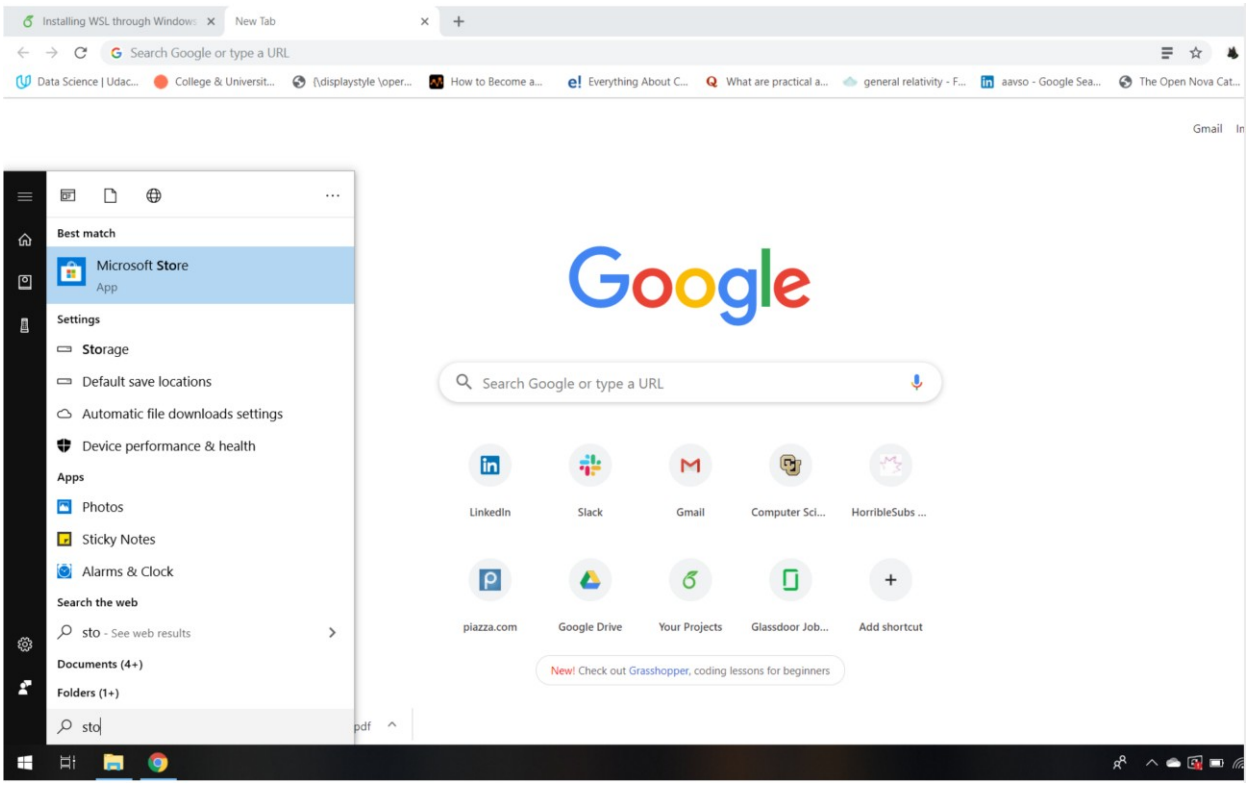
Step4: Click on the Start menu again and search for “Turn Windows features on or off”



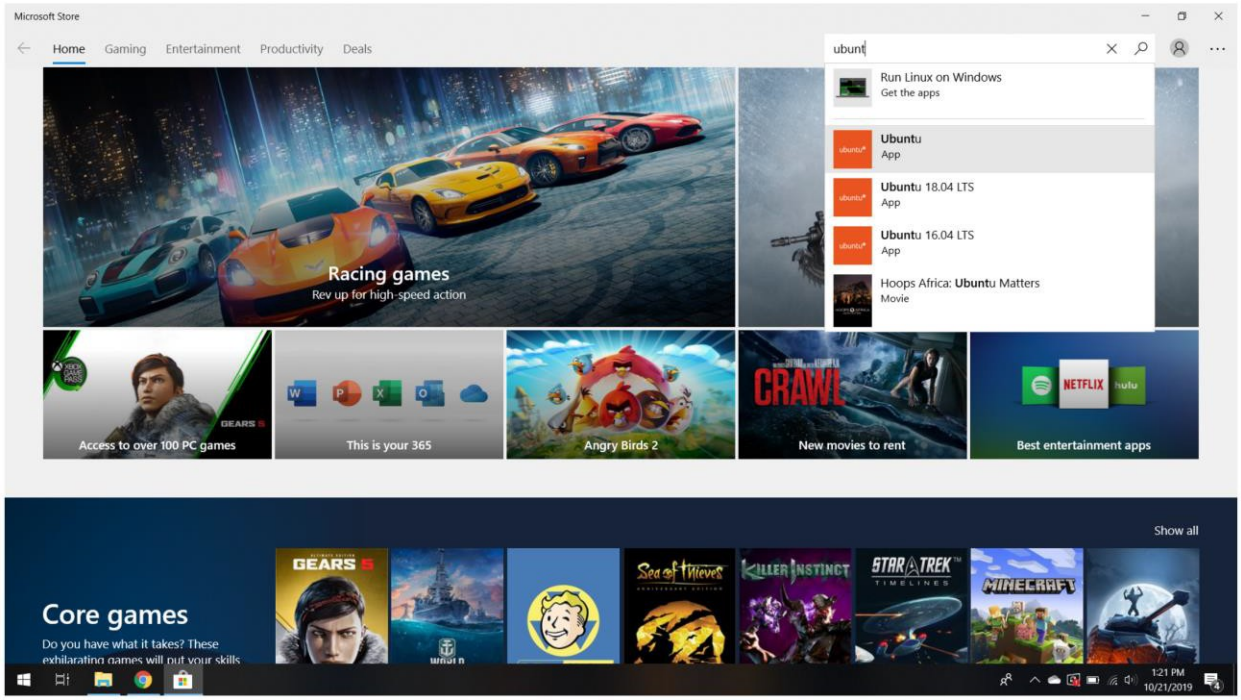
Step5: Scroll down the list in that window and enable Windows Subsystems for Linux. This will trigger a brief loading screen and asks you to restart your computer. Click on “restart now”.

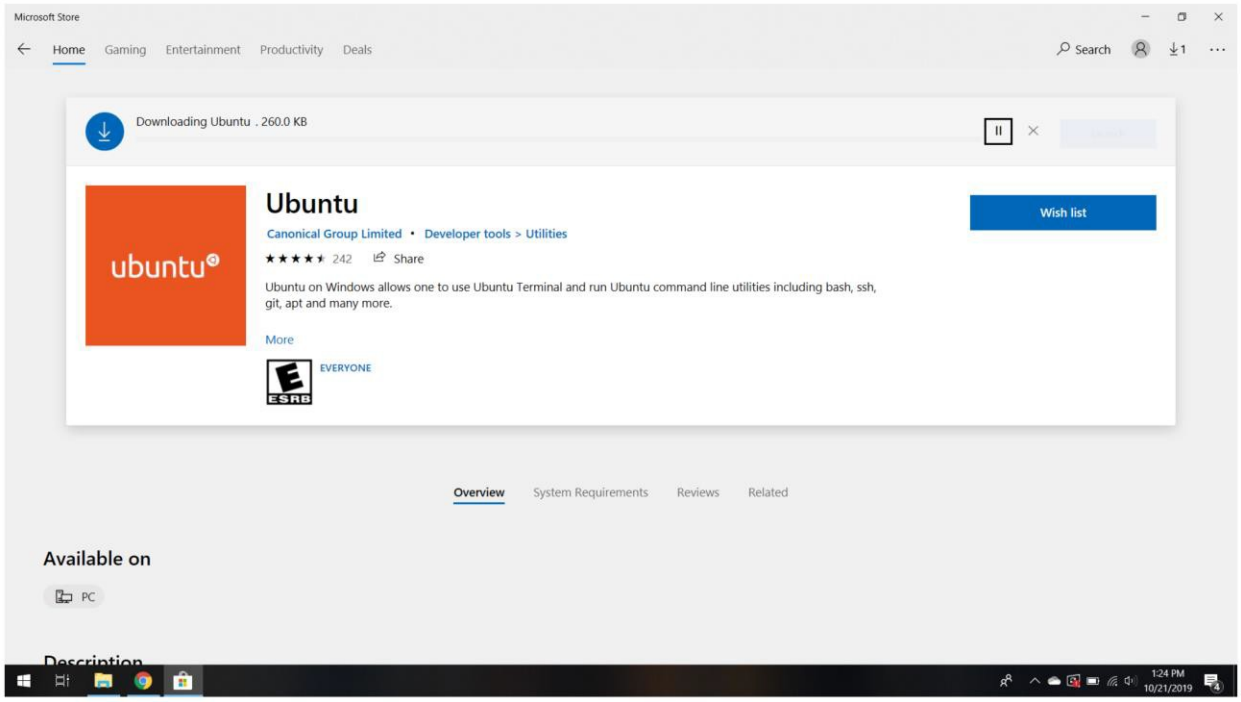


Step6: Search for the Microsoft store and click on it.



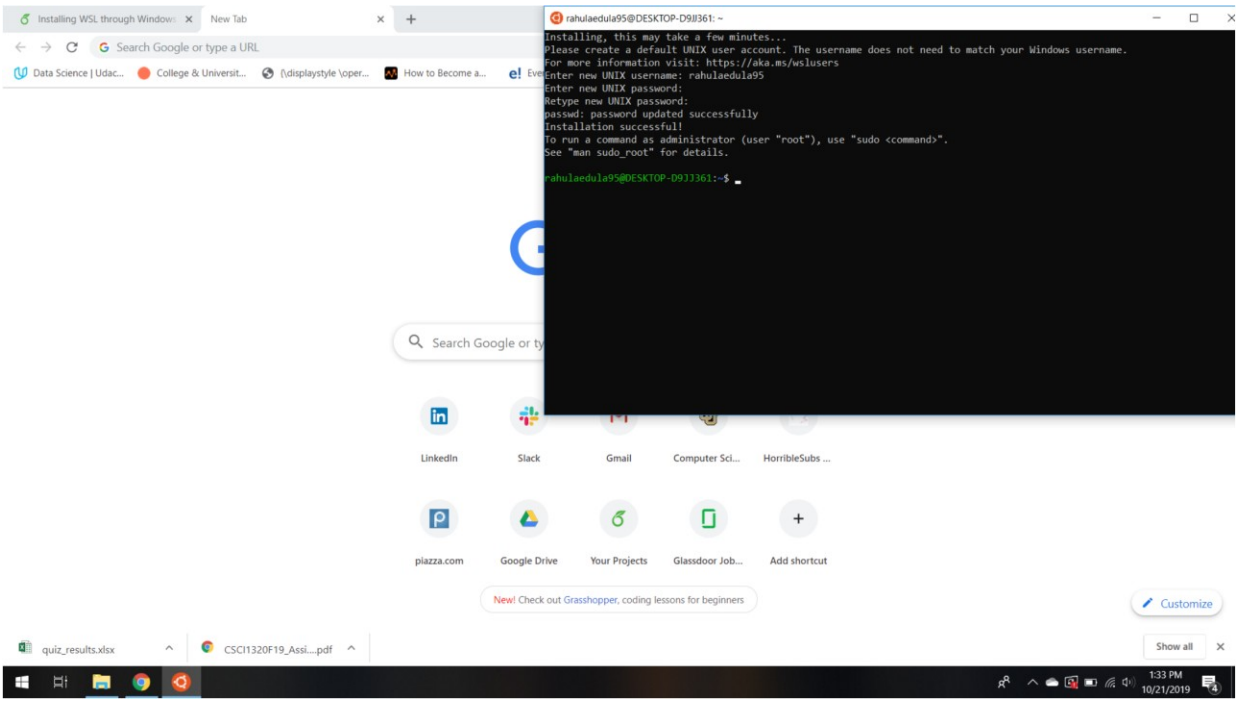
Step7: Search for Ubuntu inside Microsoft Store and Click on Install



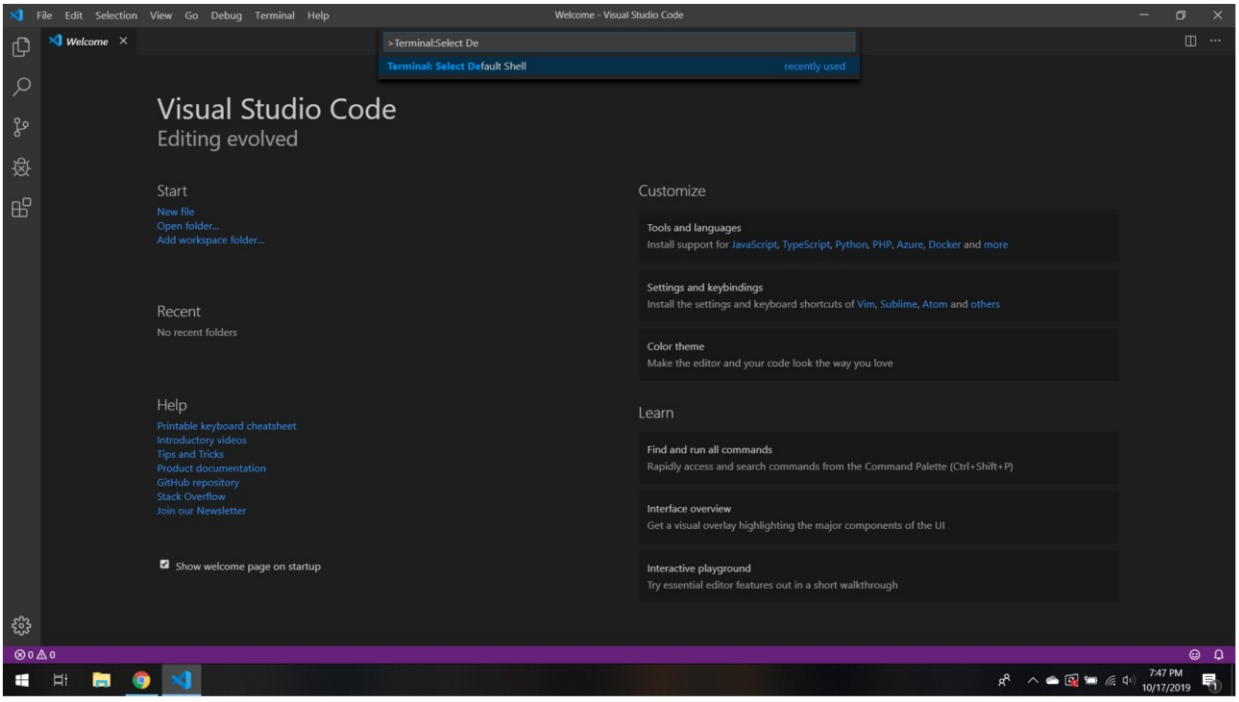


Step8: Open Ubuntu in the start menu and let it finish installing.

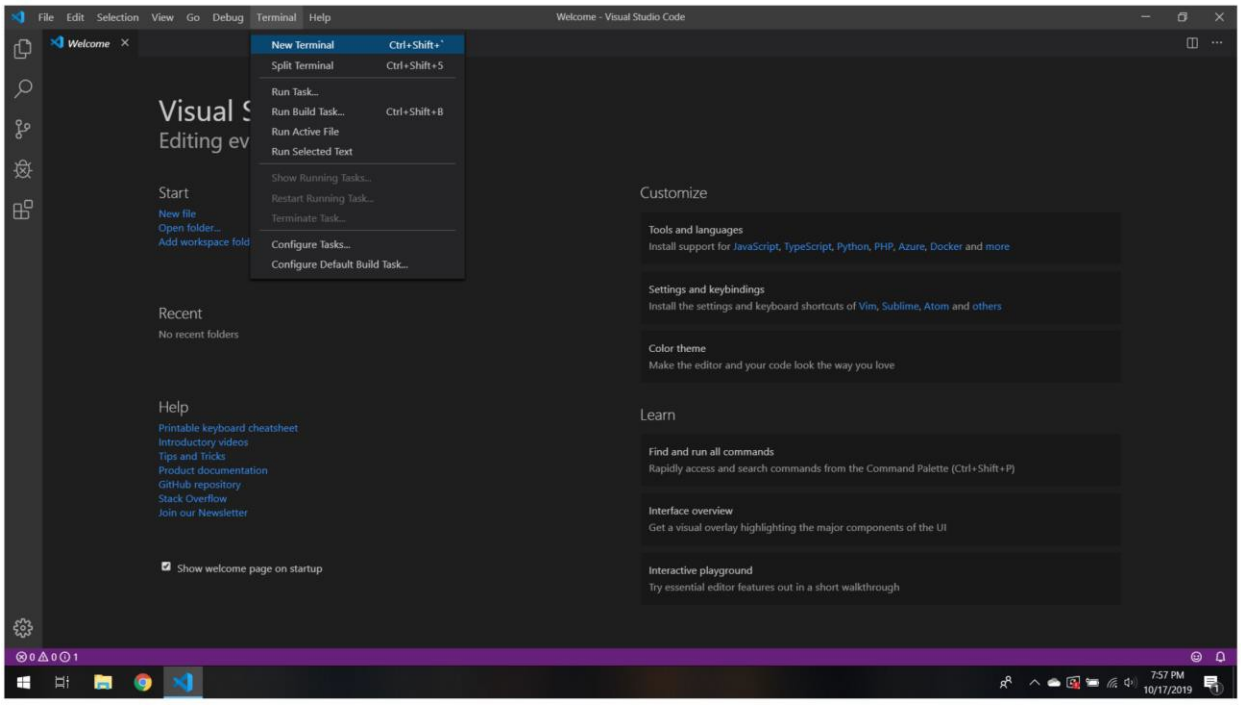
Step9: Make sure you give it an appropriate username and password of your choice.

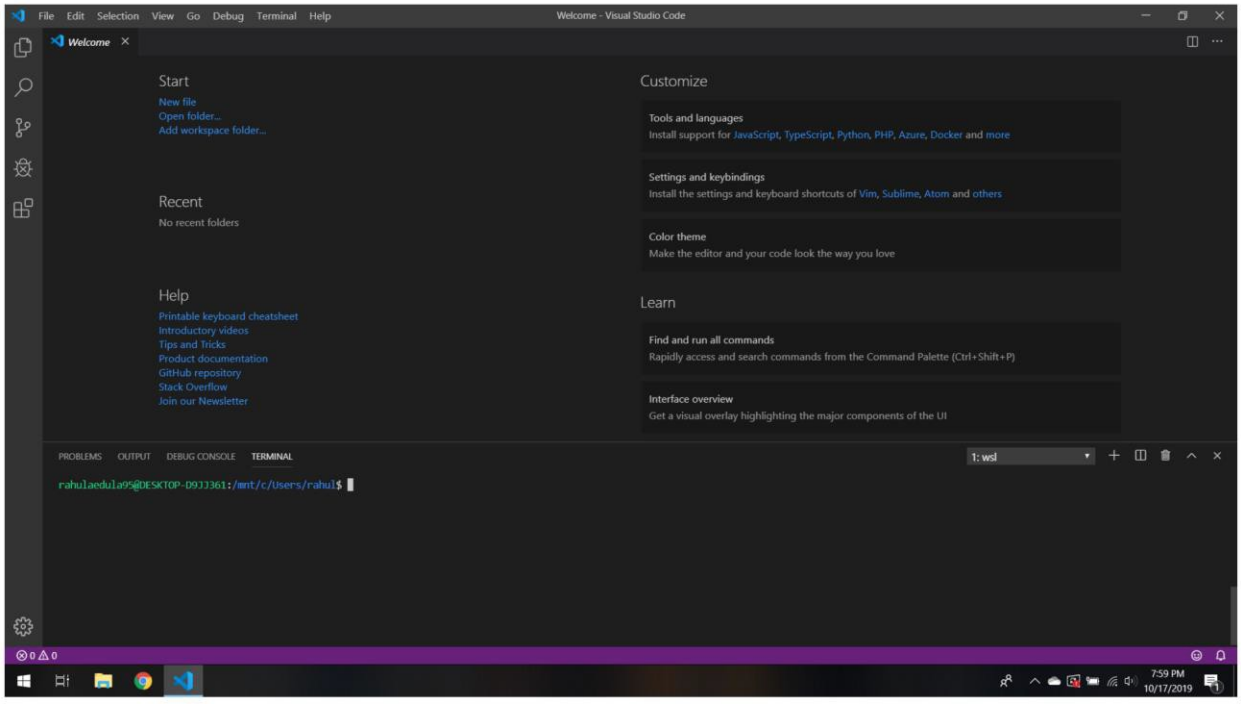


Step10: Now start Visual Studio Code again to add the final touches. Press on ctrl+shift+p to get a drop down and search for Terminal: Select Default Shell. Choose the WSL Shell as your default shell.

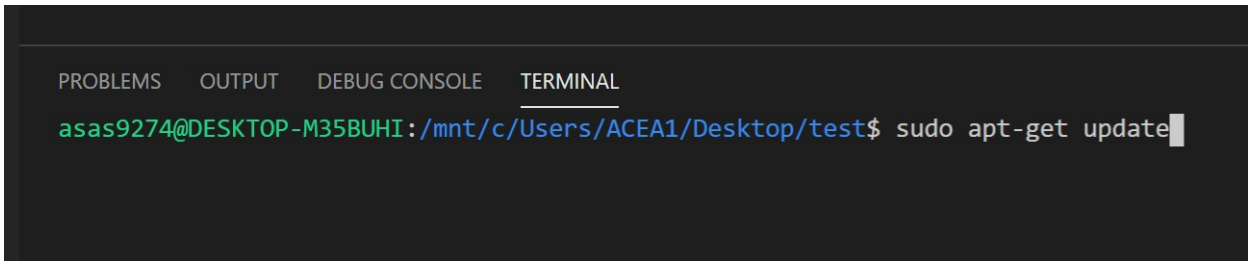


Step11: We can now click on New Terminal from the drop down menu on the top of Visual Studio Code. This will open a new terminal on the bottom of your screen.





Step12: We need to run an update so that we can use the C++ compiler. In the terminal window, run the command sudo apt-get update and hit Enter. It may take several minutes to complete.

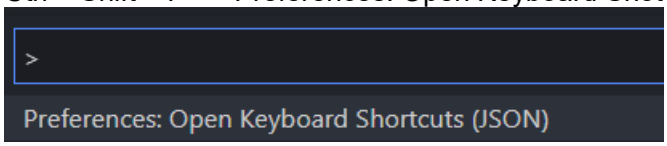


Step 13: Install updates to Ubuntu with
"**`sudo apt update && sudo apt upgrade`**"
Type "y" and hit enter to accept changes.

Step 14: We need to install g++. In the terminal window, run the command
"**`sudo apt install gcc && sudo apt install g++`**"
and hit Enter. It may take several minutes to complete. Once it finishes, restart VS Code.
Type "y" and hit enter when prompted.

Toggle between Editor and Command Line

Ctrl + Shift + P >> Preferences: Open Keyboard Shotcuts




```
// Place your key bindings in this file to override the defaults
[
  // Toggle between terminal and editor focus
  { "key": "ctrl+1", "command": "workbench.action.terminal.focus"},
  { "key": "ctrl+1", "command": "workbench.action.focusActiveEditorGroup", "wh
en": "terminalFocus"}
]
```